5-4-2018

Pointing a Telescope Toward the Night Sky: Transparency and Intentionality as Teaching Techniques

Beth Fuchs
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Transparency and Intentionality as Teaching Techniques

POINTING A TELESCOPE TOWARD THE NIGHT SKY

Beth Fuchs
Undergraduate Learning Librarian
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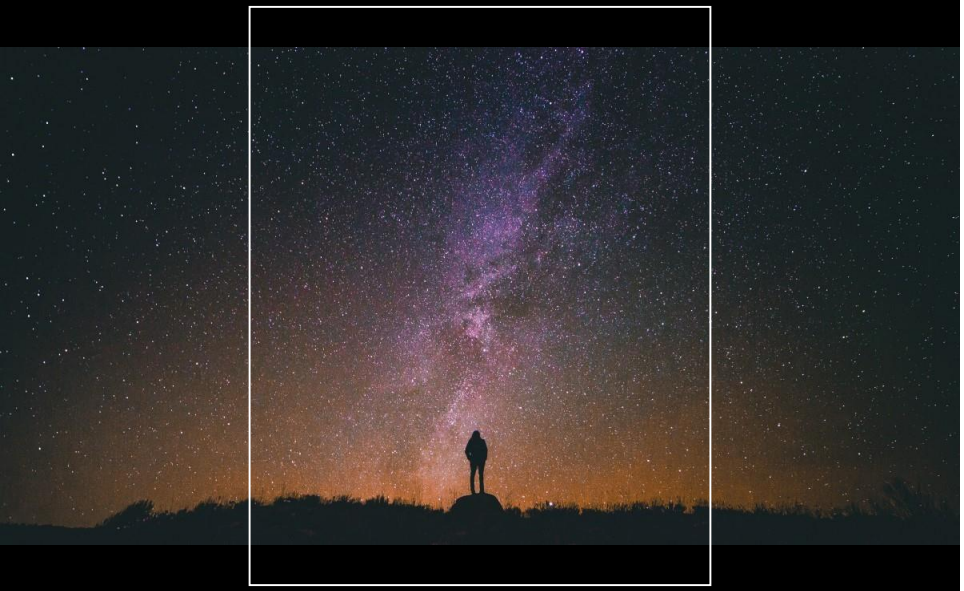
LOEX 2018

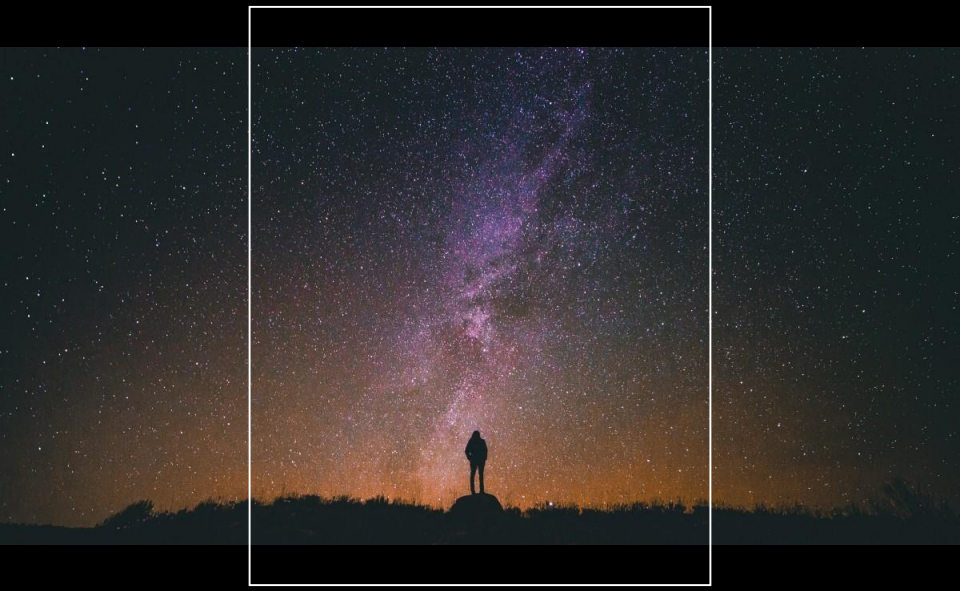


Participants will:

define transparent teaching in order to be able to identify transparent teaching practices when they encounter them.

use a template to compare transparently-designed assignments and non-transparently-designed assignments in order to examine how existing teaching activities can be transformed to incorporate aspects of transparent teaching.

collaboratively brainstorm ways to incorporate transparent teaching into their own pedagogical practices in order to consider a variety of different approaches for potential use.



Today's Goals

Context

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Shared Understanding

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Implications and Application

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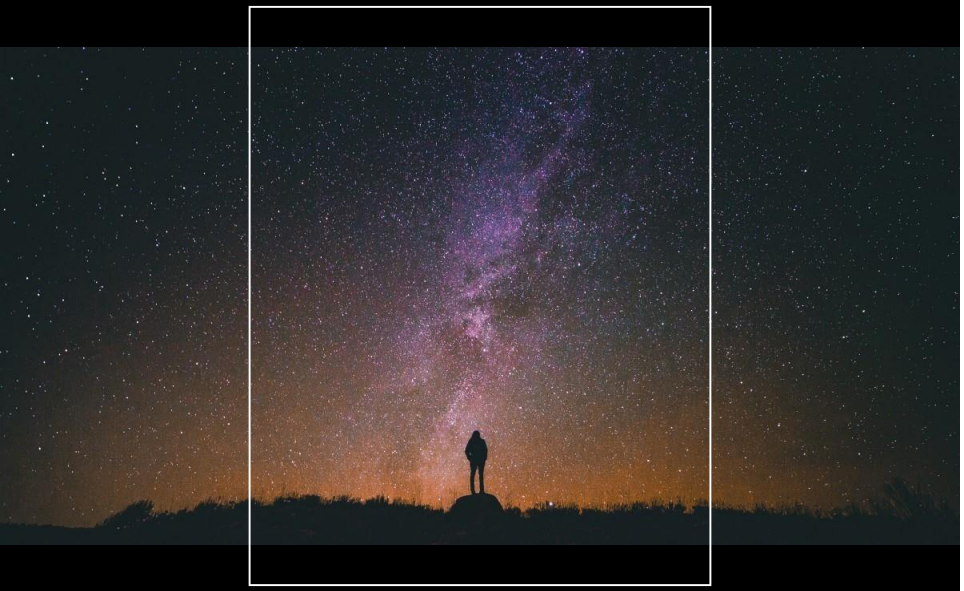

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Reflection and Conversation

What types of professional knowledge do you draw on when designing a typical instruction session?

Reflection and Conversation

How often do you communicate the “why” behind your instructional decisions with your students?

What We Tend to See


HYDRA
Alphard
Pollux
Castor
Menkalinan
GEMINI
CANIS MINOR
MONOCEROS
Procyon
AURIGA
Alhena
NGC2264 Cone Nebula
PYXIS
M47
NGC2244
Alnath
TAURUS
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PUPPIS
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CANIS MAJOR
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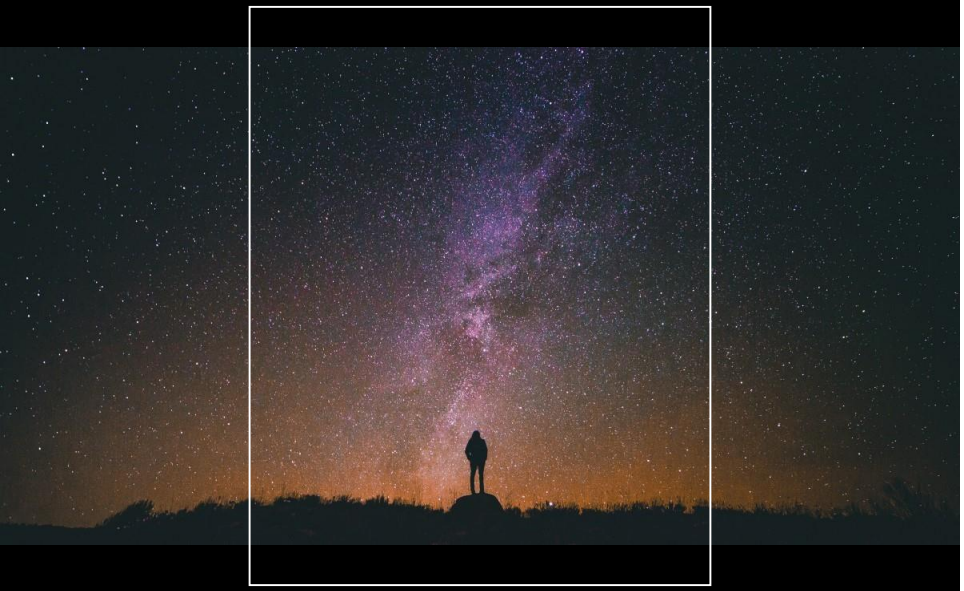
COLUMBA

What Our Students Tend to See

Helping Them to See More



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Transparency in Learning and Teaching In Higher Education (*TILT* Higher Ed)

https://www.unlv.edu/provost/teachingandlearning

Spring 2013, Vol. 99, No. 2

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Current Issue

Liberal Education

Transparency in Teaching: Faculty Share Data and Improve Students' Learning

By: Mary-Ann Winkelmes

Faculty rarely have opportunities to research their students' views about how their best learning happens in college or graduate school. Even less common are the means for teachers to gather such information from colleagues on a large scale and distill it into pragmatic insights about teaching practices best suited to their own particular students. The Illinois Initiative on Transparency in Learning and Teaching is a grassroots assessment project doing just that, and it demonstrably enhances students' learning. The project has two main goals: (1) to promote students' conscious understanding of how they learn; and (2) to enable faculty to gather, share, and promptly benefit from data about students' learning by coordinating their efforts across disciplines, institutions, and countries.

Statistically significant early results indicate distinct current and future learning benefits of particular teaching and learning methods that are specific to discipline, class size, level of

Some Statistically Significant Teaching Methods

Discuss assignments' learning goals and design rationale before students begin each assignment

Explicitly connect "how people learn" data with course activities when students struggle at difficult transition points

Gauge students' understanding during class via peer work on questions that require students to apply concepts you've taught

Winkelmes, M. (2013). Transparency in teaching: Faculty share data and improve students' learning. *Liberal Education*, *99*(2), 51-54.

Additional methods: https://www.unlv.edu/provost/transparency

Winter/Spring 2016, Vol. 18, No. 1/2

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Current Issue

Peer Review

A Teaching Intervention that Increases Underserved College Students' Success

By: Mary-Ann Winkelmes, Matthew Bernacki, Jeffrey Butler, Michelle Zochowski, Jennifer Golanics and Kathryn Harriss Weavil

The challenge to provide equitable opportunities for college students to succeed is a critical priority for the Association of American Colleges and Universities (AAC&U). In 2014, AAC&U partnered with the Transparency in Learning and Teaching in Higher Education (*TILT* Higher Ed) project, founded at the University of Illinois and now housed at the University of Nevada, Las Vegas, on an initiative that significantly increases underserved college students' success. TG Philanthropy funded the Transparency and Problem-Centered Learning project (www.aacu.org/problemcenteredlearning), with Tia McNair, Ashley Finley, and Mary-Ann Winkelmes as the coinvestigators. In its first year, the endeavor has identified a simple, replicable teaching intervention that demonstrably enhances students' success, especially that of first-generation, low-income, and

Teaching:
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Results: Students noticed . . .

Connecting
information from a variety of sources

Learning
on your own

Applying
knowledge and skills to different contexts

Writing
effectively

Judging
the reliability of information from various sources

Considering
opinions or points of view different from your own

Results: Faculty noticed . . .

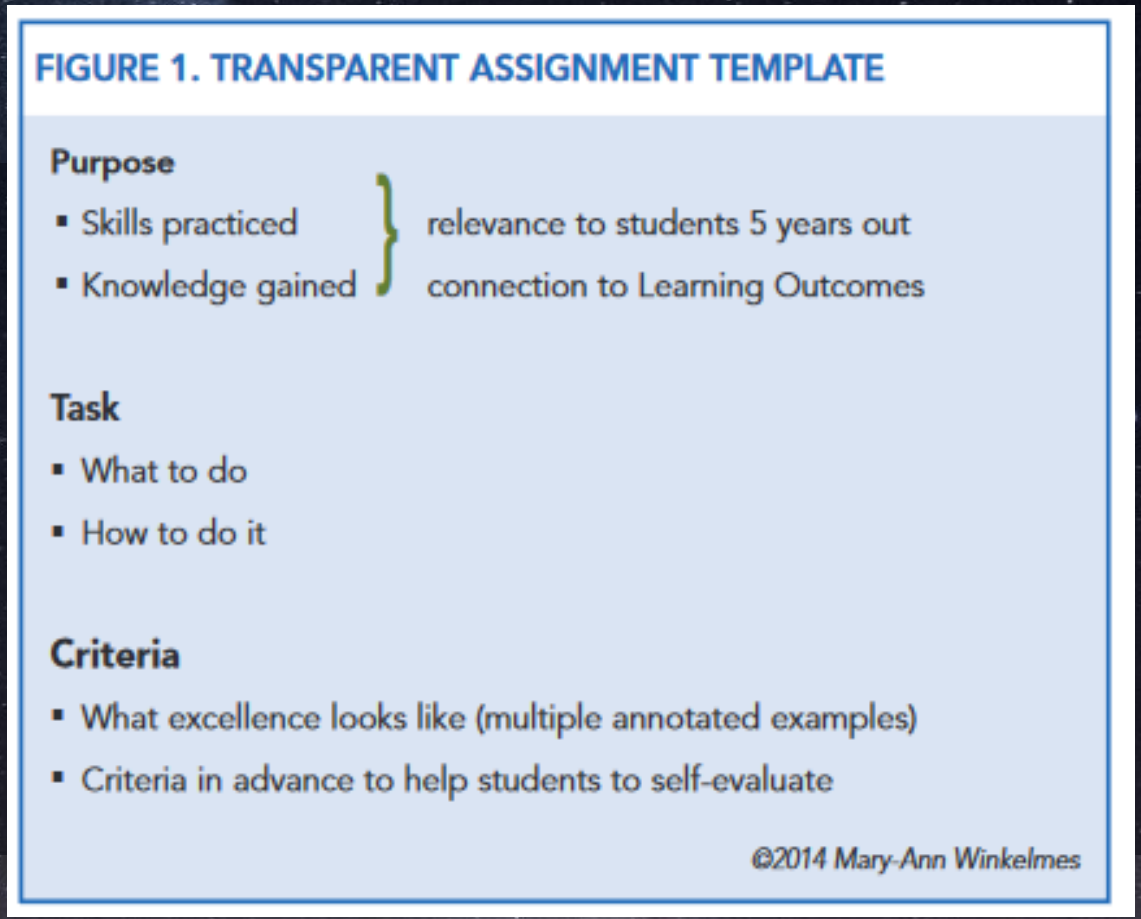
Students' motivation
in class

Higher-level
class discussions with sharper focus

On-time
completion of assignments

Fewer disputes
about grades

A Closer Look



Winkelmes, M., Bernacki, M., Butler, J., Zochowski, M., Golanics, J., & Weavil, K. H. (2016). A teaching intervention that increases underserved college students' success. *Peer Review*, *18*(1/2), 33.

(LESS TRANSPARENT)

Exercise 3: Scientific Evidence

Read through your example scientific poster and answer the following questions.

Title of your example poster:

1. What is the ethical question that is being asked?

2. What pieces of evidence do they provide in support of **and** in opposition of their question?
   In Opposition: In Support

3. Are the pieces of evidence from peer-reviewed scientific sources (look at the references to be sure)?

4. How are the pieces of evidence presented (numbers, graphs, tables, figures)?

5. How are the pieces of evidence analyzed in the Discussion section?

6. What is the ethical conclusion?

7. Do the pieces of evidence support their conclusion? Why or why not?

8. Are you convinced by their evidence of their ethical conclusion? Why or why not?

9. What questions do you still have after reading this poster? What could they have done better?

Retrieved from: https://www.unlv.edu/provost/transparency/tilt-higher-ed-examples-and-resources

(MORE TRANSPARENT)

SCI 101, Alison Sloat

Exercise 3: Scientific Evidence

Purpose: The purpose of this assignment is to analyze an existing scientific poster. This will increase your familiarity with how scientific posters are constructed, and will help you later in the course when you research, design, and create your own effective poster with sufficient scientific evidence that supports your conclusion. As a result of completing this assignment, you will be able to identify the sources of scientific information, interpret the results, and critically analyze the scientific merit of the conclusion of an existing scientific poster.

Task: Read through your example scientific poster and answer the following questions.

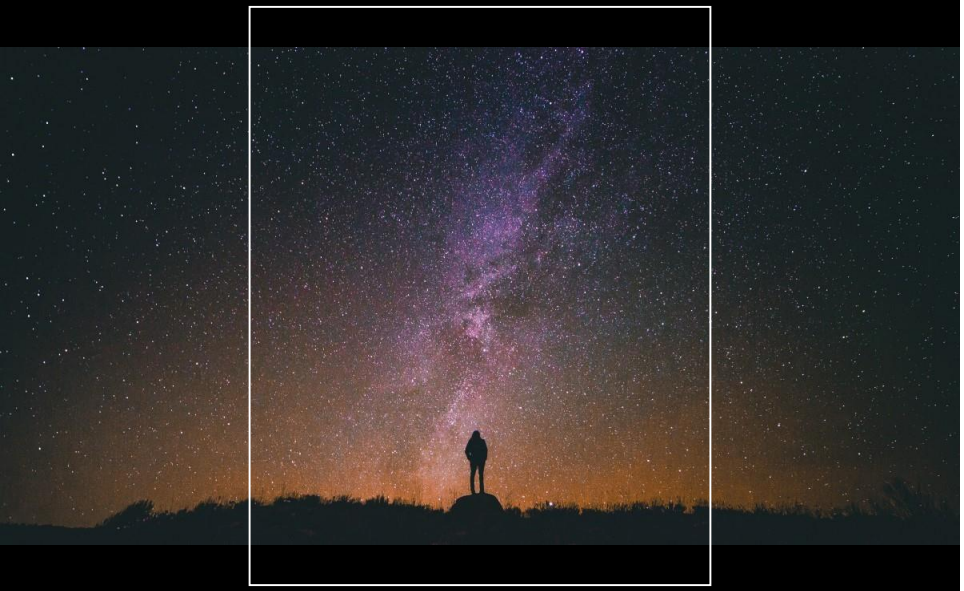
Title of your example poster:

1. Identify the ethical question that is being asked.
2. List the evidence the authors provide in support of **and** in opposition to their question.
3. Examine the pieces of evidence listed in #2 above. Identify whether they are from popular (Pop), scientific peer-reviewed (SPR), or non-scientific peer-reviewed (NSPR) sources, and note each statement above as (Pop), (SPR), or (NSPR). Do you think there is enough scientific evidence from peer-reviewed articles? Why or why not?
4. Describe how the pieces of evidence are presented (e.g., numbers, graphs, tables, figures).
5. Explain how the pieces of evidence are analyzed in the Discussion section.
6. Identify the ethical conclusion.
7. After analyzing the content of the poster, do the pieces of evidence support their conclusion? Explain why or why not.
8. After assessing the scientific merit of their evidence, are you convinced of their ethical conclusion? Explain why or why not.
9. List the questions you still have after reading this poster. What could they have done better?

Criteria: The grade on this assignment will reflect how completely you answer the questions.

Retrieved from: https://www.unlv.edu/provost/transparency/tilt-higher-ed-examples-and-resources

How will you recognize it?



Today's Goals

Context

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Shared Understanding

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Implications and Application

↓

Implications for . . . Relevancy and Motivation

"When we remind students why they are learning something (not just what they are learning), we appeal to a different part of their thinking. We tap into their motivation to learn."

Fisher, D., Frey, N., & Hite, S. (2016). *Intentional and targeted teaching: A framework for teacher growth and leadership*. Alexandria, VA: ASCD, 88.

Implications for . . .Teachers, Knowledge, and Expectations

> *"It has been said that change is inevitable, but growth is intentional. If this is true, then intentionality is crucial to becoming a great teacher."*

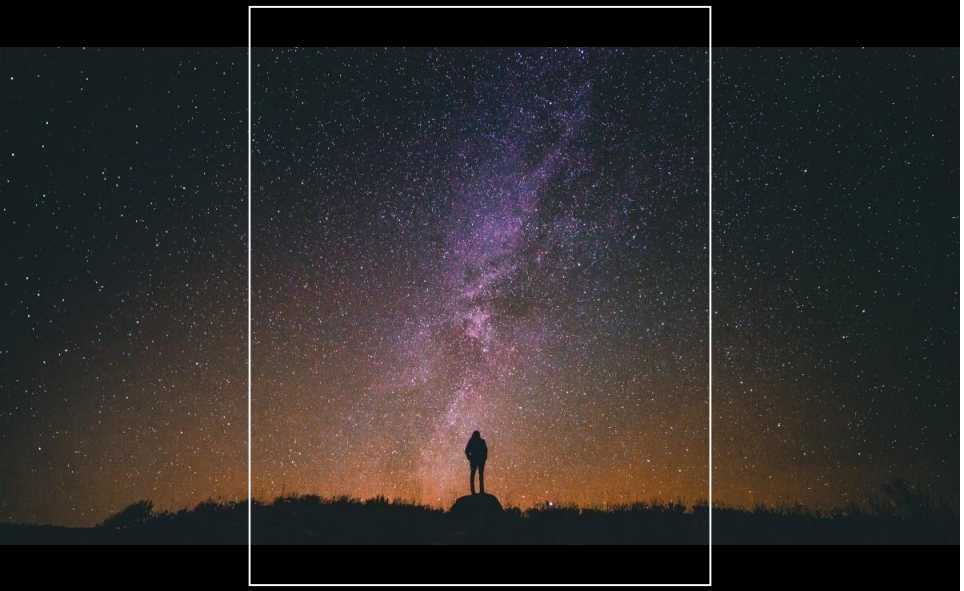
Hubbell, E. R., & Goodwin, B. (2013). *The 12 touchstones of good teaching.* Alexandria, VA: ASCD, 182.

Implications for . . . Assessment

"What is most important is that teaching is visible to the student, and that the learning is visible to the teacher."

Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. London: Routledge, 25.


Application:
Transparent Teaching in Action



Let students know why you are part of their class

Articulate the learning outcome early; repeat

Show assessment questions at the beginning

Let students know how professional reading informed the development of an activity/worksheet/lesson plan, etc.

Further Reading

Anderson, A.D., Hunt, A.N., Powell, R.E., & Dollar, C.B. (2013). Student perceptions of teaching transparency. *Journal of Effective Teaching, 13*(2), 38-47.

Berrett, D. (2015, September 25). The unwritten rules of college. *Chronicle of Higher Education*, *62*(4), 5.

Fisher, D., Frey, N., & Hite, S. (2016). *Intentional and targeted teaching: A framework for teacher growth and leadership*. Alexandria, VA: ASCD.

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Head, A., Hostetler, K.,(Interviewers) and Winkelmes, M. (Interviewee). (2015, September 2). Mary-Ann Winkelmes: Transparency in teaching and learning. *Project Information Literacy, Smart Talk Interview, 25*. Retrieved from: http://www.projectinfolit.org/mary-ann-winkelmes-smart-talk.html

Hubbell, E. R., & Goodwin, B. (2013). *The 12 touchstones of good teaching*. Alexandria, VA: ASCD.

Jankowski, N. A. (2016). *Unpacking relationships: Instruction and student outcomes*. American Council on Education. Retrieved from: http://www.acenet.edu/news-room/Documents/Unpacking-Relationships-Instruction-and-Student-Outcomes.pdf

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Credits

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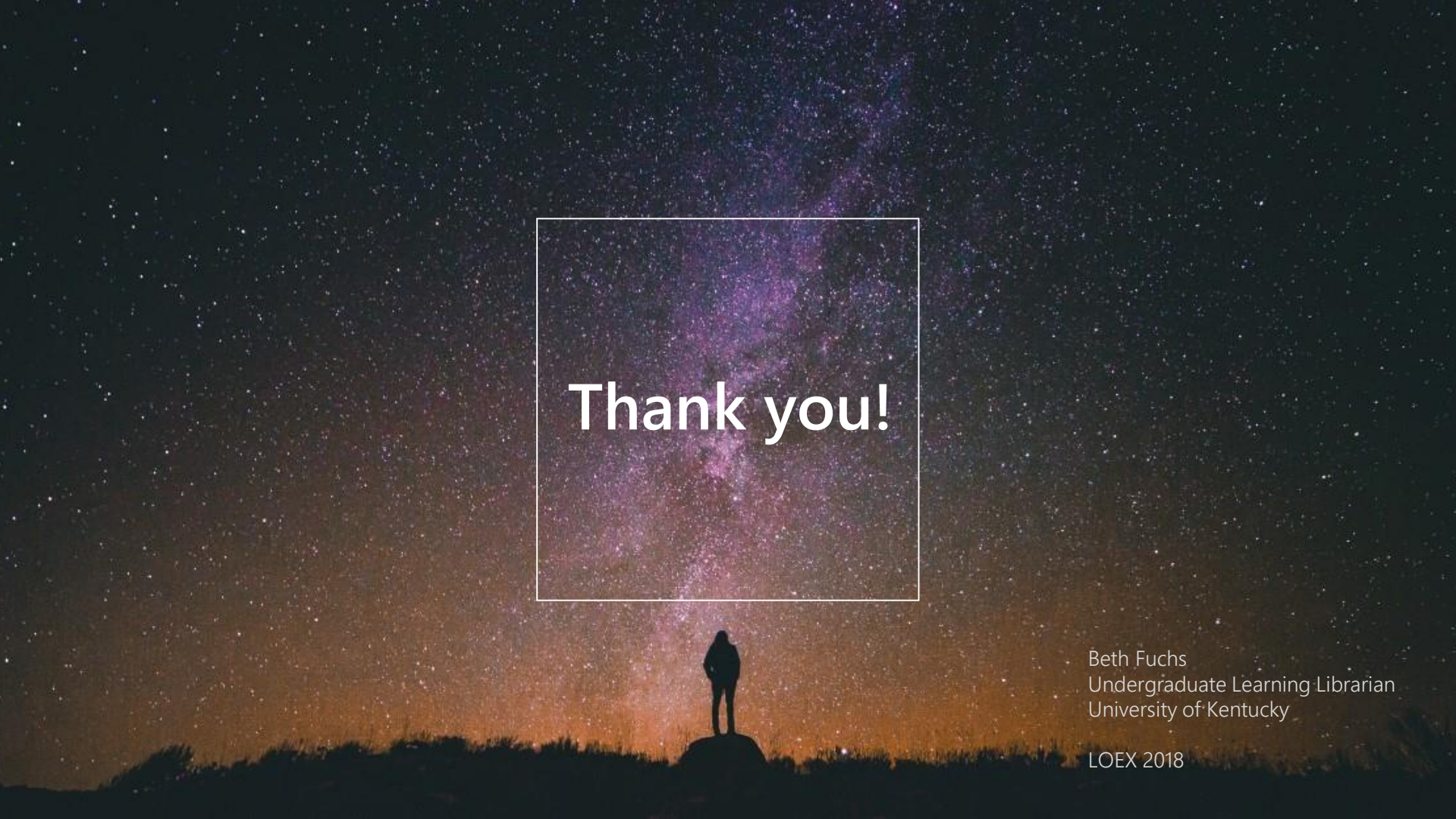
"Les yeux plein d'étoiles." Mahkeo. https://unsplash.com/photos/rpVQJbZMw8o

"Constellations." nd-nʌ. https://www.flickr.com/photos/evanzxcv/3405576021 CC BY-NC-SA 2.0 (https://creativecommons.org/licenses/by-nc-sa/2.0/)

"Stargazers keep an eye on the sky." U.S. Air Force/Airman Jessica Keith. http://www.goodfellow.af.mil/Newsroom/Art/igphoto/2000064356/



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